



Instrument Air Systems



Why Instrument Air?

An Instrument Air system provides high pressure, clean, dry air for medical support services. Per NFPA 99:

- 5.1.3.8.2.1 “Instrument Air shall be permitted to be used for any medical support purpose (e.g., to operate tools, air driven booms, pendants or similar applications) and (if appropriate to the procedures) to be used in laboratories.”
- 5.1.3.8.3.1 “Instrument air sources shall produce air at not less than a gauge pressure of 1380kPa (200 psi) output pressure.”
- 5.1.3.8.10.1 (2) “A local alarm and alarms at all master alarm panels that activate when the dew point at system pressure exceeds -30°C (-22°F), indicating high dew point.”

Why Powerex?

The Powerex Instrument Air systems are NFPA 99 compliant and feature 250 psi lubricated compressors, HMI touch screen panel, dual desiccant dryers, air receiver, and a dew point monitor set to alarm at -22°F . Extra heavy duty compressor design, state of the art touch screen display, and ease of installation makes Powerex your choice for your instrument air needs.

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System Features:

- 250 psi lubricated air compressors
- HMI touch screen display
- Run time hour meter for each pump (on HMI)
- High air temperature shutdown with indication on the display (on HMI)
- Full voltage starter with overload protection
- Maintenance counter with alarm warning display (on HMI)
- System pressure display (on HMI)
- General compressor fault with remote contacts
- Automatic start/stop control with energy saving variable-pump-drive system
- Inlet filtration with replaceable elements
- Air-cooled aftercooler for each compressor
- Dual desiccant dryers
- Dew Point monitor set to alarm at -22°F

Front Mounted Control Panel includes:

- HMI touch screen with digital display
- Programmable Logic Controller
- Power Distribution block
- Through door Motor Protector Circuit Breakers for all pumps
- Pressure Transducer
- Dual 120Vac control transformers with fused primary and secondary protection
- General Fault Dry contact to indicate: High Temperature condition or Motor Overload Trip
- Dry contacts to indicate High Dew Point
- Door mounted 95– dBA Audible indicator
- Dryer selector switch
- Fail safe features: back up low pressure switch, door mounted HOA switches, door mounted acknowledge/silence push button

ENGINEERING SPECIFICATIONS

Model	HP	Phase	Voltage	SCFM @ 200 PSIG ^(1,2)	Tank Size (Gal.)	Dimensions (L X W X H) Inches	Unit Weight (lbs.)*
Duplex—Model IPD							
IPD0554	5 (2)	3	208/230/460	15.5	120	66 x 63 x 79	1794
IPD0754	7.5 (2)	3	208/230/460	19.6	120	66 x 63 x 79	1888
IPD1004	10 (2)	3	208/230/460	29.0	120	66 x 63 x 79	2470
Triplex—Model IPT							
IPT0554	5 (3)	3	208/230/460	31.0	120	66 x 95 x 79	2539
IPT0754	7.5 (3)	3	208/230/460	39.2	120	66 x 63 x 79	2828
IPT1005	10 (3)	3	208/230/460	58.0	200	66 x 95 x 79	3772
Quadplex—Model IPQ							
IPQ0554	5 (4)	3	208/230/460	46.5	120	66 x 126 x 79	3205
IPQ0755	7.5 (4)	3	208/230/460	58.8	200	66 x 126 x 84	3608
IPQ1006	10 (4)	3	208/230/460	87.0	240	66 x 126 x 95	4774

Notes: 1—SCFM is listed with one pump in reserve per NFPA 99.

2—Instrument Air Systems should not be sized using ICFM. Powerex recommends using performance ratings in SCFM (Standard Cubic Feet per Minute) when sizing Instrument or Medical Air systems.

* Unit weights are approximate. Actual weights may vary.

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